Cell & Tissue Research

Volume 289 1997

Editors

K. Unsicker, Heidelberg (Coordinating Editor)H. Altner, RegensburgM.J. Cavey, CalgaryW.W. Franke, Heidelberg J.F. Morris, Oxford
A. Oksche, Giessen
B. Russell, Chicago
J.R. Sladek, North Chicago
N.J. Strausfeld, Tucson

Cooperating Editors

A.D. Blest, Canberra

Elisabetta Dejana, Milano R. Dermietzel, Regensburg K. Dorshkind, Riverside A.C. Enders, Davis J.B. Furness, Melbourne H.G. Hartwig, Düsseldorf C. Heym, Heidelberg N. Hirokawa, Tokyo A.F. Holstein, Hamburg Chaya Kalcheim, Jerusalem M. Kawata, Kyoto R.O. Kelley, Albuquerque H.-W. Korf. Frankfurt/M. B. Krisch, Kiel W. Kummer, Giessen R.R. Markwald, Charleston K. Miyazono, Tokyo

R. Pabst, Hannover J.M. Polak, London F.G. Rathjen, Berlin E. Reale, Hannover J.-P. Revel, Pasadena H. Risau, Bad Nauheim E.M. Rodríguez, Valdivia D.R. Roop, Houston D.W. Scheuermann, Antwerp H. Schmalbruch, Copenhagen G. Schütz, Heidelberg Maya Simionescu, Bucharest F. Sundler, Lund Andrée Tixier-Vidal, Paris Y. Toh. Fukuoka L. Vollrath, Mainz E.D. Wachsmuth, Basel R.L. Wood, Los Angeles R.M. Zinkernagel, Zürich



D.R. Nässel, Stockholm

Cell & Tissue Research

This journal was founded in 1924 as the Zeitschrift für Zellen- und Gewebelehre, from Vol. 2 (1925) it was published with the subtitle: Continuation of the Schultze-Waldeyer-Hertwig Archiv für mikroskopische Anatomie. Zeitschrift für Zellforschung und mikroskopische Anatomie (Vols. 1–20) (1934) as: Zeitschrift für wissenschaftliche Biologie (Abteilung B) edited by R. Goldschmidt, W. von Möllendorff, H. Bauer, J. Seiler. Vols. 228 (1938) edited by R. Goldschmidt and W. von Möllendorff. Vols. 29-33 (1944) as: Zeitschrift für Zellforschung und mikroskopische Anatomie, Abteilung A, Allgemeine Zellforschung und mikroskopische Anatomie, edited by W. von Möllendorff and J. Seiler, from Vol. 34 without the subtitle, Abteilung A, Allgemeine Zellforschung und mikroskopische Anatomie. From Vol. 34 (1949) edited by W. Bargmann, J. Seiler; from Vol. 53 (1960) edited by W. Bargmann, B. Scharrer, J. Seiler; from Vol. 83 (1967) edited by W. Bargmann, D.S. Farner, A. Oksche, B. Scharrer, J. Seiler; from Vol. 125 (1972) edited by W. Bargmann, D.S. Farner, F. Knowles, A.Oksche, B. Scharrer. Beginning with Vol. 125 (1972) with the subtitle Cell and Tissue Research, beginning with Vol.148 (1974) under the title Cell and Tissue Research and the subtitle Continuation of Zeitschrift für Zellforschung und mikroskopische Anatomie and beginning with Vol. 235 (1984) under the title Cell and Tissue Research. Beginning with Vol. 164 (1975), edited by W. Bargmann, D.S. Farner, B. Lofts, A. Oksche, B. Scharrer and L. Vollrath; As of Vol. 193 (1978), edited by D.S. Farner, B. Lofts, A. Oksche (Coordinating Editor), B. Scharrer and L. Vollrath; from Vol. 227 (1981), edited by D.S. Farner, B. Lofts, J.F. Morris, A. Oksche (Coordinating Editor), B. Scharrer and L. Vollrath; from Vol. 228 (1983), edited by D.S. Farner, D.E. Kelly, B. Lofts, J.F. Morris, A. Oksche (Coordinating Editor), B. Scharrer and L. Vollrath. Beginning with Vol. 235 (1984), title changed to Cell and Tissue Research (no subtitle). As of Vol. 251 (1988), edited by H. Altner, D.S. Farner, B. Lofts, J.F. Morris, A. Oksche (Coordinating Editor), B. Scharrer, N.J. Strausfeld and L. Vollrath. Beginning with Vol. 252/3 (1988), M.J. Cavey became one of the editors. From Vol. 254/1 (1988), edited by H. Altner, M.J. Cavey, B. Lofts, J.F. Morris, A. Oksche (Coordinating Editor), B. Scharrer, N.J. Strausfeld and L. Vollrath. Starting with Vol. 268/1 (1992), J.R. Sladek became one of the editors. As of Vol. 275/1 (1994) B. Russell became one of the editors. From Vol. 283/2 (1996), edited by K. Unsicker (Coordinating Editor), H. Altner, M.J. Cavey, W.W. Franke, J.F. Morris, A. Oksche, B. Russell, J.R. Sladek, N.J. Strausfeld and L. Vollrath.

Published: Vols. 1–33 (1924–1947) Julius Springer, Berlin, Vols. 34–35 (1948–1950) Springer, Wien, from Vol. 36 (1951) Springer, Berlin, Heidelberg.

Copyright

Submission of a manuscript implies: that the work described has not been published before (except in the form of an abstract or as part of a published lecture, review, orthesis); that it is not under consideration for publication elsewhere; that its publication has been approved by all coauthors, if any, as well as by the responsible authorities at the institute where the work has been carried out; that, if and when the manuscript is accepted for publication, the authors agree to automatic transfer of the copyright to the publisher; and that the manuscript will not be published elsewhere in any language without the consent of the copyright holders.

All articles published in this journal are protected by copyright, which covers the exclusive rights to reproduce and distribute the article (e.g., as offprints), as well as all translation rights. No material published in this journal may be reproduced photographically or stored on microfilm, in electronic data bases, video disks, etc., without first obtaining written permission from the publisher.

The use of general descriptive names, trade names, trademarks, etc., in this publication, even if not specifically identified, does not imply that these names are not protected by the relevant laws and regulations.

While the advice and information in this journal is believed to be true and accurate at the date of its going to press, neither the authors, the editors, nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

Special regulations for photocopies in the USA: Photocopies may be made for personal or in-house use beyond the limitations stipulated under Section 107 or 108 of U.S. Copyright Law, provided a fee is paid. All fees should be paid to the Copyright Clearance Center, Inc., 21 Congress Street, Salem, MA 01970, USA, stating the ISSN 0302-766X, the volume, and the first and last pagenumbers of each article copied. The copyright owner's consent does not include copying for general distribution, promotion, new works, or resale. In these cases, specific written permission must first be obtained from the publisher.

The Canada Institute for Scientific and Technical Information (CISTI) provides a comprehensive, world-wide document delivery service for all Springer-Verlag journals. For more information, or to place an order for a copyright-cleared Springer-Verlag document, please contact Client Assistant, Document Delivery, Canada Institute for Scientific and Technical Information, Ottawa, K1A OS2, Canada (Tel: 613-993-9251; FAX: 613-952-8243; e-mail: cisti.docdel@nrc.ca).

This journal is included in both the Springer Journals Preview Service and the ADONIS service.

The Springer Journals Preview Service offers the tables of contents and BiblioAbstracts via Internet several weeks before the new issue reaches the subscribers. Tables of contents are free of charge; BiblioAbstracts are available for a small annual fee. Details can be obtained by sending an e-mail message containing the line *help* to svjps@springer.de.

In the ADONIS service copies of individual articles can be printed out from compact discs (CD-ROM) on demand. An explanatory leaflet giving further details of the scheme is available from the publishers on request.

Printers: Universitätsdruckerei H. Stürtz AG, Würzburg

© Springer-Verlag Berlin · Heidelberg 1997 Springer-Verlag GmbH & Co. KG D-14197 Berlin, Germany Printed in Germany



Contents of Volume 289

Abel PL → O'Brien BJ

Abelli L → Romano N

Andres MA → Lafarga M

Ashwell KWS, Mai JK: Developmental expression of the CD15 epitope in the hippocampus of the mouse 17

Baccino FM → De Stefanis D

Balaskas C, Gabella G: Laminin immunoreactivity in enteric ganglia of the chick embryo 243

Barnert S → Götz W

Baumgarten HG → Brüning G

Benzer $S \to Tix S$

Berciano MT → Lafarga M

Bertagnoli R → Götz W

Biale A → Candia Carnevali MD

Boeuf G → Mayer-Gostan N

Boison D → Stoffel W

Böker KHW → Geisler S

Bonasoro F → Candia Carnevali MD

Bradley JSJr, Parr EJ, Sharkey KA: Effects of inflammation on cell proliferation in the myenteric plexus of the guinea-pig ileum 455

Bronzel M → Distler C

Brüning G, Liangos O, Baumgarten HG: Prenatal development of the serotonin transporter in mouse brain 211

Burnstock G → Sosunov AA

Buschang P → Moroco JR

Büssow H → Stoffel W

Calle E → Lafarga M

Candia Carnevali MD, Bonasoro F, Biale A: Pattern of bromodeoxyuridine incorporation in the advanced stages of arm regeneration in the feather star Antedon mediterranea 363

Casseday JH → Vater M

Chen L → Tung PS

Chiba A: Distribution of neuropeptide Y-like immunoreactivity in the brain of the bichir, Polypterus senegalus, with special regard to the terminal nerve 275

Clarkson ED, Zawada WM, Freed CR:

GDNF improves survival and reduces apoptosis in human embryonic dopaminergic neurons in vitro 207

Codogno $P \rightarrow De$ Stefanis D

Coles JA → Pipe RK

Covey E → Vater M

Crook N → Duve H

Cummings SL: Neuropeptide Y, somatostatin, and cholecystokinin of the anterior piriform cortex 39

De Stefanis D, Démoz M, Dragonetti A, Houri J-J, Ogier-Denis E, Codogno P, Baccino FM, Isidoro C: Differentiation-induced changes in the content, secretion, and subcellular distribution of lysosomal cathepsins in the human colon cancer HT-29 cell line 109

Démoz M → De Stefanis D

Ding Y-Q → Mann PT

Distler C, Bronzel M, Paas I, Wahle P: Bio-

chemical and histological analysis of two Müller cell antibodies in developing and adult cat and rat central nervous system

Dragonetti $A \rightarrow De$ Stefanis D

Dünker N: Development and organization of the retinal dopaminergic system of Ichthyophis kohtaoensis (Amphibia; Gymnophio-

Duve H, Johnsen AH, Maestro J-L, Scott AG, Crook N, Winstanley D, Thorpe A: Identification, tissue localisation and physiological effect in vitro of a neuroendocrine peptide identical to a dipteran Leu-callatostatin in the codling moth Cydia pomonella (Tortricidae: Lepidoptera) 73

Dyrynda EA, Pipe RK, Ratcliffe NA: Subpopulations of haemocytes in the adult and developing marine mussel, Mytilus edulis, identified by use of monoclonal antibodies

Ebihara S → Hirunagi K

Espenes A, Press CMcL, Van Rooijen N, Landsverk T: Apoptosis in phagocytotic cells of lymphoid tissues in rainbow trout (Oncorhynchus mykiss) following administration of clodronate liposomes 323

Eule $E \rightarrow Tix S$

Fam NP → Tung PS Farley SR → Pipe RK Fehér E → Sosunov AA Fischbach K-F → Tix S Freed CR → Clarkson ED Fukada Y → Hirunagi K Fukazawa T → Nakagawa K Furness JB → Mann PT

Gabella G → Balaskas C

Geisler S, Lichtinghagen R, Böker KHW, Veh RW: Differential distribution of five members of the matrix metalloproteinase family and one inhibitor (TIMP-1) in human liver and skin 173

Gesase AP → Oomori Y

Geurtsen W → Hillmann G

Gill SS → Pietrantonio PV

Götz W, Barnert S, Bertagnoli R, Miosge N, Kresse H, Herken R: Immunohistochemical localization of the small proteoglycans decorin and biglycan in human intervertebral discs 185

Govind CK → Patel V

Gronenberg W, Paul J, Just S, Hölldobler B: Mandible muscle fibers in ants: fast or powerful? 347

Habara Y → Satoh Y

Haddad A → Mestriner ACD

Hassall CJS → Sosunov AA

Herken R → Götz W

Hidaka H → Iino S

Hillmann G, Geurtsen W: Light-microscopical investigation of the distribution of extracellular matrix molecules and calcifications in human dental pulps of various ages 145

Hinton R → Moroco JR

Hirota S → Ishikawa K

Hirunagi K, Ebihara S, Okano T, Takanaka Y, Fukada Y: Immunoelectron-microscopic investigation of the subcellular localization of pinopsin in the pineal organ of the chicken 235

Hiscott P, Seitz B, Schlötzer-Schrehardt U, Naumann GOH: Immunolocalisation of thrombospondin 1 in human, bovine and rabbit cornea 307

Hölldobler B → Gronenberg W

Holy J, Schatten G: Recruitment of maternal material during assembly of the zygote centrosome in fertilized sea urchin eggs

Houri J-J → De Stefanis D

Iacopino AM → Moroco JR

Iino S, Kobayashi S, Hidaka H: Heterogeneous distribution of neurocalcin-immunoreactive nerve terminals in the mouse adrenal medulla 439

Ikeda M → Takeuchi M

Inoue K → Terakado K

Ishikawa K, Komuro T, Hirota S, Kitamura Y: Ultrastructural identification of the *c-kit*expressing interstitial cells in the rat stomach: a comparison of control and Ws/Ws mutant rats 137

Ishikawa K → Oomori Y Ishizuya-Oka A → Ueda S Isidoro C → De Stefanis D

Johnsen AH → Duve H Just $S \rightarrow Gronenberg W$

Kanno T → Satoh Y

Kierdorf H, Kierdorf U: Disturbances of the secretory stage of amelogenesis in fluorosed deer teeth: a scanning electron-microscopic study 125

Kierdorf U → Kierdorf H

Kikuyama S → Terakado K

Kimura T → Suzuki H Kitamura Y → Ishikawa K

Kobayashi N, Sakai T: Emergence and distribution of intimal smooth muscle cells in the postnatal rat aorta 487

Kobayashi $S \rightarrow \text{Iino } S$

Koibuchi N → Ueda S

Komuro T → Ishikawa K

Kossmann H → Mayer-Gostan N

Kresse H → Götz W

Kurimoto M → Takeuchi M

Lafarga M, Lerga A, Andres MA, Polanco JI, Calle E, Berciano MT: Apoptosis induced by methylazoxymethanol in developing rat cerebellum: organization of the cell nucleus and its relationship to DNA and rRNA degradation 25

Landsverk $T \rightarrow Espense A$

Lerga A → Lafarga M Liangos O → Brüning G

Lichtinghagen R → Geisler S

Loesch A → Sosunov AA

Lucas P, Nagnan-Le Meillour P: Primary culture of antennal cells of *Mamestra brassicae*: morphology of cell types and evidence for biosynthesis of pheromone-binding proteins in vitro 375

Maestro J-L → Duve H
Mai JK → Ashwell KWS
Mann PT, Southwell BR, Ding Y-Q, Shigemoto R, Mizuno N, Furness JB; Localisation of neurokinin 3 (NK3) receptor immunoreactivity in the rat gastrointestinal tract

Martinet L \rightarrow Peytevin J Mascarello F \rightarrow Rowlerson A Masson-Pévet M \rightarrow Peytevin J Mastrolia L \rightarrow Romano N Matsumoto M \rightarrow Nakagawa K

Mayer-Gostan N, Kossmann H, Watrin A, Payan P, Boeuf G: Distribution of ionocytes in the saccular epithelium of the inner ear of two teleosts (*Oncorhynchus mykiss and Scophthalmus maximus*) 53

Mestriner ACD, Haddad A: Horseradish peroxidase: a reliable or a misleading tool for the investigations on the origin of the proteins of the aqueous humor? 85

Milam SB \rightarrow Moroco JR Miosge N \rightarrow Götz W Mizukami A \rightarrow Suzuki H Mizuno N \rightarrow Mann PT Moran MF \rightarrow Tung PS Moriya H \rightarrow Nakagawa K

Moroco JR, Hinton R, Buschang P, Milam SB, Iacopino AM: Type II collagen and TGF-βs in developing and aging porcine mandibular condylar cartilage: immunohistochemical studies 119

Müller WEG: Origin of metazoan adhesion molecules and adhesion receptors as de-

molecules and adhesion receptors as deduced from cDNA analyses in the marine sponge *Geodia cydonium*: a review 383

Nagnan-Le Meillour P → Lucas P
Nakagawa K, Sakiyama H, Fukazawa T,
Matsumoto M, Takigawa M, Toyoguchi T,
Moriya H: Coordinated change between
complement C1s production and chondrocyte differentiation in vitro 299
Naumann GOH → Hiscott P
Nishizaki Y → Takeuchi M

Ogawa M → Terakado K
Ogier-Denis E → De Stefanis D
Ohta T → Takeuchi M
Okano T → Hirunagi K
Olavarria JF → O'Brien BJ
Oomori Y, Satoh Y, Ishikawa K, Gesase AP:
Exocytosis in the antral gastrin cells of mouse, rat, and guinea pig after stimulation by carbamylcholine 463

O'Brien BJ, Abel PL, Olavarria JF: A morphological anomaly of the dorsal lateral geniculate nucleus in *Macaca fascicularis*

11

Paas I → Distler C
Parr EJ, Sharkey KA: Multiple mechanisms
contribute to myenteric plexus ablation induced by benzalkonium chloride in the
guinea-pig ileum 253

Parr EJ → Bradley JSJr

Patel V, Govind CK: Synaptic exocytosis of dense-core vesicles in blue crab (*Callinectes sapidus*) stomach muscles 517

Paul J \rightarrow Gronenberg W Payan P \rightarrow Mayer-Gostan N

Peytevin J, Masson-Pévet M, Martinet L: Ontogenesis of the retinohypothalamic tract, vasoactive intestinal polypeptide- and peptide histidine isoleucine-containing neurons and melatonin binding in the hypothalamus of the mink 427

Pietrantonio PV, Gill SS: Ductin, a component of the V-ATPase, is developmentally regulated in *Heliothis virescens* midgut, and anti-ductin antibodies label lateral membranes 97

Pipe RK, Farley SR, Coles JA: The separation and characterisation of haemocytes from the mussel *Mytilus edulis* 537

Pipe RK → Dyrynda EA Polanco JI → Lafarga M Press CMcL → Espenes A

Radaelli $G \rightarrow$ Rowlerson A Ratcliffe $NA \rightarrow$ Dyrynda EA

Romano N, Abelli L, Mastrolia L, Scapigliati G: Immunocytochemical detection and cytomorphology of lymphocyte subpopulations in a teleost fish *Dicentrarchus labrax* 163

Rowlerson A, Radaelli G, Mascarello F, Veggetti A: Regeneration of skeletal muscle in two teleost fish: *Sparus aurata* and *Brachydanio rerio* 311

Saitoh Y → Ueda S Sakai T → Kobayashi N Sakiyama H → Nakagawa K Sano K → Satoh Y Sano O → Takeuchi M

Satoh Y, Sano K, Habara Y, Kanno T: Effects of carbachol and catecholamines on ultrastructure and intracellular calcium-ion dynamics of acinar and myoepithelial cells of lacrimal glands 473

Satoh Y \rightarrow Oomori Y Scapigliati G \rightarrow Romano N Schatten G \rightarrow Holy J Schlötzer-Schrehardt U \rightarrow Hiscott P

Scott AG \rightarrow Duve H Segner H \rightarrow Vogt G Seitz B \rightarrow Hiscott P

Sekiguchi T → Suzuki H

Sharkey KA \rightarrow Bradley JSJr Sharkey KA \rightarrow Parr EJ

Sharkey KA → Parr EJ Sherer TB, Spitsbergen J

Sherer TB, Spitsbergen JM, Steers WD, Tuttle JB: Thrombin regulates nerve growth factor secretion from vascular, but not bladder smooth muscle cells 155

Shigemoto R → Mann PT

Sosunov AA, Hassall CJS, Loesch A, Turmaine M, Fehér E, Burnstock G: Neuropeptide Y-immunoreactive intracardiac neurones, granule-containing cells and nerves associated with ganglia and blood vessels in rat and guinea-pig heart 445

Southwell BR \rightarrow Mann PT Spitsbergen JM \rightarrow Sherer TB

Stebbings H: Direct evidence for the nature of the binding of mitochondria to microtu-

bules in ovarian nutritive tubes of an hemipteran insect 333

Steers WD → Sherer TB

Stoffel W, Boison D, Büssow H: Functional analysis in vivo of the double mutant mouse deficient in both proteolipid protein (PLP) and myelin basic protein (MBP) in the central nervous system 195

Suzuki H, Kimura T, Sekiguchi T, Mizukami A: FMRF amide-like-immunoreactive primary sensory neurons in the olfactory system of the terrestrial molluse, *Limax marginatus* 339

Takanaka Y → Hirunagi K
Takeuchi M, Nishizaki Y, Sano O, Ohta T,
Ikeda M, Kurimoto M: Immunohistochemical and immuno-electron-microscopic detection of interferon-γ-inducing factor
("interleukin-18") in mouse intestinal epithelial cells 499

Takigawa $M \to Nakagawa K$

Terakado K, Ogawa M, Inoue K, Yamamoto K, Kikuyama S: Prolactin-like immunore-activity in the granules of neural complex cells in the ascidian *Halocynthia roretzi* 63

Thorpe $A \rightarrow Duve H$

Tix S, Eule E, Fischbach K-F, Benzer S: Glia in the chiasms and medulla of the *Drosophila melanogaster* optic lobes 397

Toyoguchi T → Nakagawa K

Tung PS, Fam NP, Chen L, Moran MF: A 54kDa protein related to ras-guanine nucleotide release factor expressed in the rat exocrine pancreas 505

Turmaine $M \rightarrow Sosunov AA$ Tuttle JB $\rightarrow Sherer TB$

Ueda S, Saitoh Y, Koibuchi N, Ishizuya-Oka A: Local disturbance of neuronal migration in the S-100β-retarded mutant mouse 547

Van Rooijen $N \rightarrow$ Espenes A Vater M, Covey E, Casseday JH: The columnar region of the ventral nucleus of the lateral lemniscus in the big brown bat (*Eptesicus fuscus*): synaptic arrangements and structural correlates of feedforward inhibi-

tory function 223 Veggetti $A \rightarrow Rowlerson A$ Veh RW \rightarrow Geisler S

Vogt G, Segner H: Spontaneous formation of intercellular bile canaliculi and hybrid biliary-pancreatic canaliculi in co-culture of hepatocytes and exocrine pancreas cells from carp 191

Wahle $P \rightarrow Distler C$ Watrin $A \rightarrow Mayer$ -Gostan N Winstanley $D \rightarrow Duve H$

Yamamoto K → Terakado K

Zawada WM → Clarkson ED

Indexed in *Current Contents* and Index *Medicus*

Subject index

Acid phosphatase Chondrocytes Dünker, N 265-274 Stoffel, Wet al 195-206 Espenes, A et al 323-331 Nakagawa, K et al 299-305 Hirunagi, K et al 235-241 Myelogenesis Aganglionosis Citalopram Immunogold labeling Stoffel, W et al 195-206 Parr, EJ et al 253-264 Brüning, G et al 211–221 Chiba, A 275-284 Myenteric ganglia, – plexus Amacrine cells Hiscott, Pet al 307-310 Balaskas, C et al 243-251 Coelomocytes Dünker, N 265-274 Candia Carnevali, MD et al Immunohistochemistry Parr, EJ et al 253-264 Amoebocytes 363-374 Balaskas, C et al 243-251 Myosin Chiba, A 275-284 Candia Carnevali, MD et al Complement C1s Rowlerson, A et al 363-374 Nakagawa, K et al 299-305 Espenes, A et al 323-331 311-322 Hiscott, P et al 307-310 Antennae Contractility Nerve cells; see also Neurons Lucas, Pet al 375-382 Gronenberg, W et al Parr, EJ et al 253-264 Parr, EJ et al 253-264 Antennal neurons 347-361 Suzuki, H et al 339-345 Nervous system, enteric Lucas, Pet al 375-382 Cornea Immunosuppression Balaskas, C et al 243-251 Hiscott, P et al 307-310 Parr, EJ et al 253-264 Apoptosis Parr, EJ et al 253-264 Clarkson, ED et al 207-210 Neuromodulators Desmin Inhibitory synapses Espenes, A et al 323-331 Vater, M et al 223-233 Suzuki, H et al 339-345 Rowlerson, A et al 311-322 Parr, EJ et al 253-264 Development, ontogenetic Neurons; see also Nerve cells Insemination reaction Balaskas, C et al 243-251 Ascorbate Holy, J et al 285-297 Parr. EJ et al 253-264 Nakagawa, K et al 299-305 Brüning, G et al 211-221 Neuropeptide Y Intestine, small Auditory system Dünker, N 265-274 Parr, EJ et al 253-264 Chiba, A 275-284 Vater, M et al 223-233 Differentiation Laminin Neuropil Parr, EJ et al 253-264 Autonomic ganglia Candia Carnevali, MD et al Balaskas, C et al 243-251 Balaskas, C et al 243-251 363-374 Liposomes Neurotransmitters, Espenes, A et al 323–331 Parr, EJ et al 253-264 Nakagawa, K et al 299-305 neurotransmission Dünker, N 265-274 Autonomic innervation, Dopamine **B-Lymphocytes** Parr, EJ et al 253-264 - nervous system Clarkson, ED et al 207-210 Nurse cells Parr, EJ et al 253-264 Dünker, N 265-274 T-Lymphocytes Stebbings, H 333–337 Parr, EJ et al 253–264 Autoradiography Duodenum Nutrition Brüning, G et al 211-221 Balaskas, C et al 243-251 Stebbings, H 333-337 Lymphoid organs (other than Basal lamina, basement listed) Olfactory epithelium, Ellipsoids, splenic membrane Espenes, A et al 323–331 Espenes, A et al 323–331 receptors Balaskas, C et al 243-251 Fertilization Lymphoid tissue Lucas, P et al 375-382 Hiscott, P et al 307-310 Holy, J et al 285–297 Espenes, A et al 323–331 Olfactory system Benzalkonium chloride Suzuki, H et al 339-345 FMRF amide (molluscan Macrophages Espenes, A et al 323-331 Parr, EJ et al 253-264 cardioexcitatory peptide), Oligodendrocytes Binding sites Parr, EJ et al 253-264 Stoffel, Wet al 195-206 RF amide Chiba, A 275-284 Brüning, G et al 211-221 Mandibles Oncoproteins, nuclear Brain (CNS), development Suzuki, H et al 339–345 Gronenberg, W et al Parr, EJ et al 253-264 Brüning, G et al 211-221 GABA (gamma-aminobutyric 347-361 Oocytes Microtubule-associated Brain (CNS), vertebrate Stebbings, H 333-337 Brüning, G et al 211-221 Vater, M et al 223-233 proteins Opsin Chiba, A 275-284 **GDNF** Stebbings, H 333-337 Hirunagi, K et al 235-241 Clarkson, ED et al 207-210 Bromodeoxyuridine Microtubules Ovary Candia Carnevali, MD et al Glial cells (other than listed) Holy, J et al 285-297 Stebbings, H 333-337 363-374 Balaskas, C et al 243-251 Stebbings, H 333-337 Parasympathetic axons Clarkson, ED et al 207-210 Mitochondria Parr, EJ et al 253-264 Cell culture Parasympathetic ganglia Parr, EJ et al 253-264 Lucas, P et al 375-382 Stebbings, H 333–337 Parr, EJ et al 253-264 Nakagawa, K et al Glia-like cells Mitosis Lucas, Pet al 375-382 Holy, J et al 285–297 Parkinson's disease 299-305 Cell cycle Glycine Muscle fiber type Clarkson, ED et al Gronenberg, W et al 207-210 Vater, M et al 223-233 Holy, J et al 285-297 347-361 Phagocytes Gonadotropin-releasing Cell death Muscle fibers Espenes, A et al 323-331 Clarkson, ED et al hormone Chiba, A 275-284 Gronenberg, W et al 207-210 Phagocytosis Cell lines Growth factors 347-361 Espenes, A et al 323-331 Candia Carnevali, MD et al Clarkson, ED et al 207-210 Muscle, striated, skeletal Pheromone-binding protein 363-374 Gronenberg, W et al Lucas, P et al 375–382 Pheromones Balaskas, C et al 243-251 347-361 Cell migration, – motility, Rowlerson, A et al 311–322 Lucas, Pet al 375-382 - movements Hemocytes **Photopigments** Lucas, P et al 375-382 Myelin Candia Carnevali, MD et al 363-374 Stoffel, W et al 195-206 Hirunagi, K et al 235-241 Cell proliferation Parr, EJ et al 253-264 Myelin sheath Pineal organ, – complex Hirunagi, K et al 235-241 Stoffel, W et al 195-206 Rowlerson, A et al 311-322 Immune response, – cells Parr, EJ et al 253-264 Myelin-associated glycoprotein Pineal photoreceptors Centrioles Holy, J et al 285-297 Immunocytochemistry (MAG) Hirunagi, K et al 235-241 Candia Carnevali, MD et al Stoffel, W et al 195-206 Pinealocytes Centrosome Holy, J et al 285-297 363-374 Myelinated axons Hirunagi, K et al 235-241

Proliferation, proliferative activity
Candia Carnevali, MD et al 363–374
Proteolipid protein
Stoffel, W et al 195–206
Pseudomyelin
Stoffel, W et al 195–206
Regeneration
Candia Carnevali, MD et al 363–374
Rowlerson, A et al 311–322
Remak's ganglion, -nerve

Balaskas, C et al 243–251
Retina
Dünker, N 265–274
Sensilla
Lucas, P et al 375–382
Sensory cilia
Hirunagi, K et al
235–241
Sensory neurons, – ganglia
Suzuki, H et al 339–345
Serotonin (5-HT)
Brüning, G et al 211–221
Serotonin transporter
Brüning, G et al 211–221

Spleen
Espenes, A et al 323–331
Submucosa
Parr, EJ et al 253–264
Submucous ganglia, – plexus
Parr, EJ et al 253–264
Terminal nerve
Chiba, A 275–284
Thrombospondin
Hiscott, P et al 307–310
Transplantation
Clarkson, ED et al 207–210
Trichogen cells
Lucas, P et al 375–382

a,β-Tubulin
Balaskas, C et al 243–251
Tyrosine hydroxylase
Dünker, N 265–274
Ultrahistochemistry
– immunohistochemistry
Candia Carnevali, MD et al
363–374
Chiba, A 275–284
Hiscott, P et al 307–310
Zygote
Holy, J et al 285–297